## **DEUTZ AG**

EXECUTIVE ORDER U-R-013-0127 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY DISPLACEMENT (liters)		FUEL TYPE	USEFUL LIFE (hours)		
2004	4DZXL07.1032	7.2, 4.8	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Direct E Smoke P	Diesel Injection, Electron uff Limiter, Turbocharge	ic Control Module, r, Charge Air Cooler	Compressor, Generator Set, Industrial Equipment			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kW-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER	EMISSION STANDARD CATEGORY		EXHAUST (g/kW-hr)				OPACITY (%)			
CLASS			нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
75 ≤ kW < 130	Tier 2	STD	N/A	N/A	6.6	5.0	0.30	20	15	50
130 ≤ kW < 225	Tier 2	STD	N/A	N/A	6.6	3.5	0.20	20	15	50
		CERT	-	-	6.1	0.6	0.09	8	2	24

**BE IT FURTHER RESOLVED:** That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this \_\_\_\_\_\_ day of January 2004.

Aller Lyons, Chief

Mobile Source Operations Division

## **ENGINE MODEL SUMMARY FORM**

Manufacturer: DEUTZ AG Engine Category: Nonroad CI EPA Family Name: 4DZXL07.1032 Mfr. Family Name: D7D Process Code: New Submission

l Device	E,ECM,
9. Emission Control Device (SAE J1930)	SOLTCEM DOFF, ECM., CAC EM EM EM EM EM EM EM EM
8. Fuel Rate (lbs./hr) @ Peak Torque	64.7 51.6 55.1 65.4 72.3 70.2 70.2
7. Peak Torque (mm³/stroke)	137 112 119 139 152 152 147
Peak Torque @ RPM(NM)	1400 1400 1400 1400 1400 1400
6. Peak T RPM	940 750 801 950 1050 1020
5. Fuel Rate (lbs./hr) Rated Power	71.8 62.8 60.5 71.8 79.7 84.4 76.0
4. Fuel Rate @ Rated Power (mm3/stroke)	116 101 92 107 121 118 107
RPM	1900 2000 2200 2200 2200 2200 2100
3. BHP@	205 180 173 205 205 241 217 201
2. Engine Model 3. BHP@	D7DEAE2 D7DEBE2 D7DGAE2 D7DGAE2 D7DGGE2 D7DGDE2 D7DLAE2 D7DLBE2
. Engine Code	CE153 CE134 CE129 CE153/1 CE170 CE180 CE162